

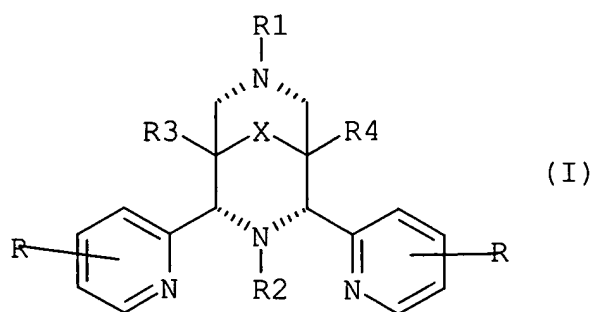
Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A bleaching composition comprising:

a) a monomer ligand or transition metal catalyst thereof of a ligand having the formula (I):



wherein each R is independently selected from: hydrogen, F, Cl, Br, hydroxyl, C1-C4-alkylo-, -NH-CO-H, -NH-CO-C1-C4-alkyl, -NH₂, -NH-C1-C4-alkyl, and C1-C4-alkyl;

R1 and R2 are independently selected from:

C1-C4-alkyl,

C6-C10-aryl, and,

a group containing a heteroatom capable of coordinating to a transition metal, wherein at least one of R1 and R2 is the group containing the heteroatom;

R3 and R4 are independently selected from hydrogen, C1-C8 alkyl, C1-C8-alkyl-O-C1-C8-alkyl, C1-C8-alkyl-O-C6-C10-aryl, C6-C10-aryl, C1-C8-hydroxyalkyl, and -
(CH₂)_nC(O)OR₅

wherein R₅ is independently selected from: hydrogen, ~~C1-C4-alkyl~~ C1-C6-alkyl, n is from 0 to 4, and mixtures thereof; and,

X is selected from C=O, -[C(R₆)₂]_Y- wherein Y is from 0 to 3 and each R₆ is independently selected from hydrogen, hydroxyl, C1-C4-alkoxy and C1-C4-alkyl; and,
b) the balance carriers and adjunct ingredients.

Claim 2 (original): A bleaching composition according to claim 1, wherein R₁ and R₂ are both selected from a group containing a heteroatom capable of coordinating to a transition metal.

Claim 3 (original): A bleaching composition according to any preceding claim, wherein the group containing the heteroatom is:

a heterocycloalkyl: selected from the group consisting of: pyrrolinyl; pyrrolidinyl; morpholinyl; piperidinyl; piperazinyl; hexamethylene imine; 1,4-piperazinyl; tetrahydrothiophenyl; tetrahydrofuranyl; tetrahydropyranyl; and oxazolidinyl, wherein the heterocycloalkyl may be connected to the ligand via any atom in the ring of the selected heterocycloalkyl,

a -C1-C6-alkyl-heterocycloalkyl, wherein the heterocycloalkyl of the -C1-C6-heterocycloalkyl is selected from the group consisting of: piperidinyl; piperidine; 1,4-piperazine, tetrahydrothiophene; tetrahydrofuran; pyrrolidine; and tetrahydropyran, wherein the heterocycloalkyl may be connected to the -C1-C6-alkyl via any atom in the ring of the selected heterocycloalkyl,

a -C1-C6-alkyl-heteroaryl, wherein the heteroaryl of the -C1-C6-alkylheteroaryl is selected from the group consisting of: pyridinyl; pyrimidinyl; pyrazinyl; triazolyl; pyridazinyl; 1,3,5-triazinyl; quinolinyl; isoquinolinyl; quinoxalinyl; imidazolyl; pyrazolyl; benzimidazolyl; thiazolyl; oxazolidinyl; pyrrolyl; carbazolyl; indolyl; and isoindolyl, wherein the heteroaryl may be connected to the -C1-C6-alkyl via any atom in the ring of the selected heteroaryl and the selected heteroaryl is optionally substituted by -C1-C4-alkyl,

a -C0-C6-alkyl-phenol or thiophenol,

a -C2-C4-alkyl-thiol, thioether or alcohol,

a -C2-C4-alkyl-amine, and

a -C2-C4-alkyl-carboxylate.

Claim 4 (original): A bleaching composition according to any preceding claim, wherein: each R is the same; and $R_3 = R_4$.

Claim 5 (original): A bleaching composition according to any preceding claim, wherein R_3 and R_4 are the same and are $-(CH_2)_n C(O)O-C1-C4-alkyl$.

Claim 6 (original): A bleaching composition according to any preceding claim, wherein R_3 and R_4 are selected from the group consisting of $-CH_2OH$, $-C(O)O-C1-C6-alkyl$, and phenyl.

Claim 7 (original): A bleaching composition according to any proceeding claim, wherein at least one R_1 and R_2 is a 3-C0-C6-alkyl-pyridin-2-yl-C0-C6-alkyl.

Claim 8 (original): A bleaching composition according to any preceding claim, wherein $Y = 1$

Claim 9 (original): A bleaching composition according to any preceding claim, wherein R3 and R4 are -C(O)O-C1-C6-alkyl.

Claim 10 (original): A bleaching composition according to any preceding claim, wherein at least one of R1 and R2 is selected from the group consisting of: 3-ethyl-pyridin-2-ylmethyl, pyridin-2-ylmethyl, 3-methyl-pyridin-2-ylmethyl, and 6-amide-pyridin-2-ylmethyl.

Claim 11 (original): A bleaching composition according to claim 10, wherein at least one of R1 and R2 is pyridin-2-ylmethyl.

Claim 12 (original): A bleaching composition according to any preceding claim, wherein both R1 and R2 are pyridin-2-ylmethyl and R is H.

Claim 13 (original): A bleaching composition according to any preceding claim, wherein X is C=O.

Claim 14 (original): A bleaching composition according to any preceding claim, wherein the bleaching composition comprises the free ligand.

Claim 15 (currently amended): A bleaching composition according to claims 1 to 12, wherein the [complex] transition metal catalyst is of the general formula (A1):



in which:

M represents a metal selected from Mn(II)-(III)-(IV)-(V), Cu(I)-(II)-(III), Fe(II)-(III)-(IV)-(V), Co(I)-(II)-(III), Ti(II)-(III)-(IV), V(II)-(III)-(IV)-(V), Mo(II)-(III)-(IV)-(V)-(VI) and W(IV)-(V)-(VI);

X represents a coordinating species selected from any mono, bi or tri charged anions and any neutral molecules able to coordinate the metal in a mono, bi or tridentate manner;

Y represents any non-coordinated counter ion;

a represents an integer from 1 to 10;

k represents an integer from 1 to 10;

n represents an integer from 1 to 10;

m represents zero or an integer from 1 to 20; and

L represents a ligand as defined in [claims] claim 1 to 12, or its protonated or deprotonated analogue.

Claim 16 (original): A bleaching composition according to claim 15, wherein M represents a metal selected from Fe(II)-(III)-(IV)-(V).

Claim 17 (original): A bleaching composition according to claim 16, wherein M represents a metal selected from Fe(II) and Fe(III).

Claim 18 (currently amended): ~~A ligand bleaching composition according to claim 1 wherein the [of] formula (I) according to claim 1 or a transition metal catalyst thereof with the proviso that ligand excludes the following compounds are excluded:~~

dimethyl 2,4-di-(2-pyridyl)-3,7-bis-(pyridin-2-ylmethyl)-3,7-diaza-bicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate;

1,5-bis-(hydroxymethylene)-2,4-di-(2-pyridyl)-3,7-bis-(pyridin-2-ylmethyl)-3,7-diazabicyclo[3.3.1]nonan-9-ol;

dimethyl 2,4-di-(2-pyridyl)-3,7-bis-(pyridin-2-ylethyl)-3,7-diaza-bicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate;

dimethyl 2,4-di-(2-pyridyl)-3-(5-carboxypentyl)-7-methyl-3,7-diaza-bicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate; dimethyl 2,4-di-(2-pyridyl)-3-(2-methoxyethyl)-7-methyl-3,7-diaza-bicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate; diethyl-2,4-dipyridyl-7-picoly-3,7-diaza-bicyclo-[3.3.1]-nonan-9-one-1,5-dicarboxylate ; diethyl-2,4-dipyridyl-7-benzyl-3-hydroxyethyl-3,7-diaza-bicyclo-[3.3.1]-nonan-9-one-1,5-dicarboxylate; and, dimethyl-2,4-dipyridyl-7-benzyl-3-hydroxyethyl-3,7-diaza-bicyclo-[3.3.1]-nonan-9-one-1,5-dicarboxylate.

Claim 19 (currently amended): ~~A [ligand] bleaching composition according to claim 18 of formula (I) according to claim 18 or a transition metal catalyst thereof,~~ wherein at least one of R1 or R2 is pyridin-2-ylmethyl and the other is selected from -CH3, -C2H5, -C3H7, and -C4H9.

Claim 20 (original): A perchlorate salt of dimethyl 2,4-di-(2-pyridyl) -3,7-di(pyridin-2-ylmethyl)-3,7-diaza-bicyclo[3.3.1]nonan-9-one-1,5-dicarboxylate (N2Py4).